25. An internal combustion engine, comprising:

an engine block defining at least one cylinder therein, two power cylinder inlet ports communicating between said cylinder and a source of air, and an exhaust port through which exhausted gases are expelled from said cylinder;

a piston movably mounted within said cylinder;

an intake valve selectively occluding each intake port;

an exhaust valve selectively occluding said exhaust port;

at least one compressor in fluid communication via a conduit between said source of air and at least one power cylinder inlet port;

at least one air cooler interconnected between said compressor and said inlet port;

means for selectively controlling operation of said compressor and said intake valves and for selectively controlling the air charge characteristics selected from one or more of turbulence, density, pressure, temperature, and the mean and peak pressure within said cylinder whereby at least part of the intake air can be selectively compressed by the compressor prior to entering the cylinder; and

means for directing low pressure air to a first inlet port during the intake stroke of the piston and for directing air highly compressed by a compressor to a second inlet port after said piston has passed bottom dead center and has begun the compression stroke.

26. The engine of Claim 25, wherein said means for selectively controlling comprise a common plurality of valves strategically placed along said conduit and a common engine control mechanism controlling the operation of said valves.

27. The engine of Claim 26, further comprising:

a second compressor in fluid communication between said compressor and said inlet port with which said compressor is in communication,

whereby at least part of the intake air is selectively compressed a second time prior to entering the cylinder;

wherein said means for selectively controlling include means for selectively controlling the operation of said second compressor.

28. The engine of Claim 25, wherein said compressor is a reciprocating compressor.

29. The engine of Claim 28, wherein said reciprocating compressor includes a piston connected to the engine crankshaft.

30. The engine of Claim 25, wherein said compressor is a rotary compressor.

31. An internal combustion engine, comprising:

an engine block defining at least one cylinder therein, two inlet ports communicating between said cylinder and the source of air, and an exhaust port through which air is exhausted from said cylinder;

a piston movably mounted within said cylinder;

an intake valve selectively occluding each said intake port;

an exhaust valve selectively occluding said exhaust port;

compressor in fluid communication between said source of air and one of said inlet ports;

at least one air cooler;

an air delivery network including;

conduit interconnecting said source of air, said compressor, said air cooler, and said inlet ports;

means for selectively controlling operation of said compressor to selectively generate a compressed air charge;

means for selectively directing uncharged air to a first said inlet port and compressed air to the second said inlet port.

32. The engine of Claim 25, wherein means are provided to further increase the turbulence of the charge entering the cylinder and to minimize backflow of the charge during the slow closure of the intake valves.

33. The engine of Claim 32 wherein the means to increase turbulence is a one-way valve located between the intake valve and the cylinder.

34. In an internal combustion engine having a crankshaft driven by at least one piston moving through at least a compression stroke and an expansion stroke aided by combustion taking place within a cylinder, wherein the compression stroke results in the compressing of air within the cylinder, the improvement thereto comprising:

an external compression stage in which a secondary air charge is compressed outside the cylinder;

delivery conduit linking said compression stage to the cylinder, with an intercooler through which said air charge is selectively directed from said external compression stage;

two power cylinder intake ports with an intake valve in each port; and

with means for selectively controlling the external compression stage and said intake valves, and for selectively controlling the air charge characteristics selected from one or more of turbulence, density, pressure, temperature and the means and peak pressure within said cylinder; and

means for directing low pressure air to a first power cylinder inlet port during the intake stroke of the piston and for directing air highly compressed air to a second power cylinder inlet port after said piston has reached bottom dead center.

35. The improvement of Claim 34 further comprising a second external compressor in which said air charge is lightly compressed outside the cylinder and directed to the low pressure port of the power cylinder during the intake stroke.

36. The engine of Claim 25, wherein the compression stroke results in compressing of air within the cylinder, with means for managing air charge densities to provide a compression ratio lower than the expansion ratio of the engine by employing said managing means which includes means for receiving an air charge on the intake stroke and means for retaining a smaller than normal charge.

37. An internal combustion engine, comprising:

at least one ancillary compressor for compressing an air charge, said compressor having an outlet;

an intercooler through which the compressed air is selectively directed for cooling;

a plurality of power cylinders in which the compressed air in the presence of fuel is ignited and expanded;

a piston operable in each power cylinder and connected to a crankshaft by a connecting link for rotating the crankshaft in response to reciprocation of each piston;

a transfer manifold connecting a low pressure air inlet with the power cylinders through which manifold the low pressure air is transferred to the power cylinders;

a transfer conduit communicating the compressor outlet to a control valve and to said intercooler;

a transfer manifold communicating the intercooler with the power cylinders through which manifold the compressed air is transferred to enter the power cylinders;

an intake valve controlling admission of the compressed air from the transfer manifold to said power cylinders;

an exhaust valve controlling discharge of the exhaust gases from said power cylinders; and

means for selectively controlling operation of said compressor to operate in either a compressed mode generating a compressed air charge or a pass mode passing air therethrough without compressing and for selectively controlling the air charge characteristics selected from one or more density, pressure, temperature and mean peak pressure within said cylinder after the low pressure charge has entered the power cylinders.